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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,331	01/26/2007	Gleb Chirikov	E0226.0042/P042	1540
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DICKSTEIN SHAPIRO LLP			LEE, JOHN R	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/551,331	Applicant(s) CHIRIKOV, GLEB	
	Examiner John R. Lee	Art Unit 2878	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/29/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claim 1 is objected to because of the following informalities:

In claim 1, line 12, "anda" should be "and a";

In claim 6, lines 4, "travelling" should be "traveling"; and

In claim 12, lines 4, "determinations" should be "determinations".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite because it is not clear for the following reasons. Claim 1 is not clear whether the use of the word "reference" in line 6 is the "current reference frame" mentioned in lines 4 and 7 or some other reference. Also, it is not clear whether "observational frame" in line 6 is one of the consecutive images recited in lines 2-3. Also, by "frame", does the applicant intend "image"? Also, it is not clear whether "exposures" in line 9 and "each exposure" in line 10 are the same as the image captures in lines 2-3. Also, lines 10-11 are not clear as to what is meant by "predicted position." Is this the position of the image sensor or the position of the "particular region"?

Claims 2-12 are indefinite by virtue of their dependency upon claim 1.

Claim 3 is also not clear as to whether the “different positions” refers to different “particular regions” recited in claim 1 or some other positions of the image sensor.

Claim 4 recites “reference frame”, but “reference image” may have been intended (see discussion of claim 1 above). Claims 5-12 also include the mention of “reference frame” and should be amended in accordance with claim 1.

Claim 6 and claim 9 are also not clear as to what is meant by “recapturing” and “recapture” since new images are captured; no previous image is “recaptured.”

Claim 11 is also not clear as to what position is being referred to in lines 2 and 5.

Claim 13 is indefinite for the following reasons. Claim 13 is not clear as to what the word “previous” in line 3 refers; previous what? Also, it is not clear whether “observational frame” in line 6 is one of the consecutive images recited in line 2. Also, by “frame”, does the applicant intend “image”? Also, it is not clear whether “exposures” in line 10 and “each exposure” in line 10 are the same as the image captures in line 2. Also, lines 10-11 are not clear as to what is meant by “predicted position.” Is this the position of the image sensor or the position of the “particular region”? Claim 13 is also indefinite as to what apparatus or means performs the comparison, tracing, identification, and other functions recited therein.

Allowable Subject Matter

Claims 1-13 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art fails to teach or fairly suggest the method and device as recited in claims 1 and 13 wherein the motion of a particular region of a surface is traced around an image sensor's field of view and including finding said particular region by taking images at a predicted position of the region, wherein the predicted position is identified by means of a horizontal and a vertical coordinate and a rotation angle. The examiner disagrees with the Written Opinion in PCT/SE 2004/000497. Document D1 cited therein (related to the Crane et al references cited herein) does not teach using a rotation angle as noted in the opinion. However, Crane et al. also fail to teach using a "predicted position" of the region of interest. The only prediction in Crane et al. is when the "comparison frame... will no longer overlap with a current reference frame." However, this is not predicting the position of the region of interest as recited in claims 1 and 13. Claims 2-12 would be allowable based on their dependency upon claim 1.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references made of record, but not relied upon above, are related to the present application (Chirikov) or teach various aspects of the claimed

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subject matter and/or are of general interest (Ahn, Allen et al., Andrews et al. (both), Black et al, Breton, Crane et al. (both), King, Lin et al, Simmons et al., and Wiklof et al.)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John R. Lee whose telephone number is (571) 272-2477. The examiner can normally be reached on Monday through Friday, 7:30 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on (571) 272-2328. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John R. Lee/
Primary Examiner, Art Unit 2878